## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012215 Address: 333 Burma Road **Date Inspected:** 19-Feb-2010

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 645 **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

> 34-0006 **Component:** OBG

**Summary of Items Observed:** 

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**OBG** Assembly Yard

6BW

**Bridge No:** 

Flux Core Arc Welding (FCAW) welding was performed on weld joint 005 located at OBW6F on counter weight side of segment. Welder is identified as Mr. Wu Cunxiang (070101). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2231T.

6BW+6CW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 005 located at OBW6A on cross beam side of segment. Welder is identified as Mr. Du Hengyou (037743). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-3G (3F)-FCM-Repair-1 and CWR1209 R1 repair procedure.

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6AW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 021 located at SEG027B on counter weight side of segment. Welder is identified as Mr. Du Hengyou (037743). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and CWR1144 R1 repair procedure.

7AW + 7BW

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 037~042 located at SP518-001 on cross beam side of segment. Welder is identified as Mr. Cao Xinglong (069683). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2213-B-U2-FCM-1.

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 041~047 located at SP097-001 on cross beam side of segment. Welder is identified as Mr. Jiang Zhen (068917). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2213-B-U2-FCM-1.

7AE+7BE

Flux Core Arc Welding (FCAW) welding was performed on weld joint 005 located at OBE7 on bike path side of segment. Welder is identified as Mr. Zhang Hanming (070101). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233-B-U2-F.

7BE+7CE

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 21 located at SPDP664-001 on bike path side of segment. Welder is identified as Mr. Li Wenguo (066261). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2213-B-U2-FCM-1.

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

7AW+6CW

1. Grit blasting in progress at various internal locations of segment.

NDT Observation

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performed MT on various locations in the trial assembly yard. Locations are as followed:

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#### 6AE+6BE

1. Side plate t stiffener hold back welds located on the cross beam side of segment between panel point 40 & 41.

## 6AW+6BW

1. Edge plate weld splice temporary attachment areas located on the cross beam side of segment between panel point 40 & 41.

#### 6AW+6BW

1. Observed ZPMC X ray crew setting up equipment for testing at Edge plate weld splice located on the cross beam side of segment.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz, Joe	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer